

ARGUMENTS/REMARKS

Applicants would like to thank the examiner for the careful consideration given the present application, and for the personal interview conducted on September 17, 2003. The application has been carefully reviewed in light of the Office action, and amended as necessary to more clearly and particularly describe and claim the subject matter which applicants regard as the invention.

The examiner objects to figures 19-23 as being prior art but not being so labeled. The proposed drawing amendments have been submitted for the examiner's approval.

The examiner objected to claims 1 and 3 because of a typographical error. Claims 1 and 3 have been amended to correct the error.

Claims 1-6, 9, 14, 17, 20, 23, 26, and 29-31 were rejected under 35 U.S.C. §102(b) as being anticipated by Rich *et al.* (U.S. 5,758,271). For the following reasons, the rejection is respectfully traversed.

Claim 1, as amended, recites a "threshold setting means" for setting a "threshold of an electric field intensity level based on the measured error rate of the received signal" (lines 8-10). Claim 17, as amended, recites similar method language at lines 11-13. Claim 1 also recites a "gain controlling means" and a "first controlling means" for causing the gain controlling means "to start the gain control operation when the electric field intensity detected by the electric field intensity detecting means reaches the threshold of the electric field intensity level" (lines 14-19). Claim 17, as amended, recites similar method language at lines 17-21. Rich does not teach these elements of claims 1 & 17 as limited by this language.

Instead, FIG. 4 (and the accompanying text) of Rich shows an RSSI threshold compared to an RSSI signal and an E_c/I_0 threshold compared to E_c/I_0 an signal, with an "and" operation of the comparison results used as a gain control signal, as was discussed at the personal interview, where the Examiner agreed that these did not appear to teach an error "rate". Further, Rich does *not* discuss how its RSSI threshold is set, and the drawing does not show any connections to items 408 & 410. Consequently, Rich does *not* teach setting the RSSI threshold according to the measured error rate of the received signal, as recited in the claim, as was also discussed at the personal interview. Thus, Rich does not teach all of the elements of claims 1 & 17. Accordingly, claims 1 & 17 are patentable over the reference.

Claim 3, as amended, recites a "radio receiver for receiving a signal having a signal format that is transmitted while changing transmission conditions into two

types or more" (lines 1-4), comprising "a threshold setting means for setting a threshold of an electric field intensity level based on the transmission condition of the received signal" (lines 9-13). Claim 29, as amended, recites similar method language at lines 4-8 and 9-12. Claim 3 also recites a "gain controlling means" and a "first controlling means" for causing the gain controlling means to "start the gain control operation when the electric field intensity detected by the electric field intensity detecting means reaches the threshold of the electric field intensity level" (lines 14-20). Claim 29 recites similar method language at lines 13-17. These claims were amended as was discussed at the personal interview. Rich does not teach these elements of claims 3 & 29.

Nowhere does Rich suggest receiving a signal having a signal format that is transmitted while changing transmission conditions into two types or more, as was discussed at the personal interview. Further, Rich does not suggest setting a threshold of an electric field intensity level based on the transmission condition of the signal. Consequently, Rich does not teach the cited elements of claims 3 or 29, and thus those claims are patentable over Rich.

Claim 4, as amended, also recites a "radio receiver for receiving a signal having a signal format that is transmitted while changing transmission conditions into two types or more" (lines 1-3). However, claim 4 recites a "a gain controlling means" and "a gain control amount setting means for setting a gain control amount of the gain controlling means in response to the transmission condition of the received signal" (lines 5-10). Claim 30 recites similar language at lines 5-10. Rich does not suggest these elements of claims 4 & 30.

As discussed above and at the personal interview, Rich does not suggest receiving a signal having a signal format that is transmitted while changing transmission conditions into two types or more. Further, Rich does not suggest setting a gain control amount of the gain controlling means in response to the transmission condition of the signal, as recited. Thus, claims 4 & 30 are patentable over the reference.

Claim 2 has been cancelled, making the rejection moot. Claims 5-6, & 9, which depend on one or more of claims 1, 3 & 4, are patentable for the same reasons as the parent claim, and for the limitations contained therein.

Claims 7-8, 10, 12-13, 15, 18-19, 21, 24-25 & 27 were rejected under 35 U.S.C. §103(a) as being unpatentable over Rich in view of Pearce *et al.* (U.S. 4,758,418). For the following reasons, the rejection is respectfully traversed.

The Examiner cites Pearce for teaching an automatic gain control which samples an incoming electrical signal multiplied by a present gain factor, and comparing it to a constantly changing maximum, and if the magnitude of any one of the resultant products is greater than the present maximum, establishing a new maximum, and comparing the maximum value to an upper and lower threshold, and if the maximum does not lie within the two thresholds, then the gain factor is adjusted proportional to the error calculated by the amount the signal is outside the threshold range (citing to col. 3, lines 29-45). However, even if true, this teaching does not suggest the claim limitations as recited in the rejected claims.

Claim 12, as amended, recites that the "gain control amount setting means" decides a "change direction and/or a change amount of the gain control amount in a succeeding reception based on a measured result by the error rate measuring means in a present reception and a measured result by the error rate measuring means in a preceding reception" (lines 13-18). Claim 7 recites similar language at lines 3-7, claim 18 recites similar language at lines 7-11, and claim 24 recites similar language at lines 19-24.

Claim 13 recites that:

the gain control amount setting means decides a change direction and/or a change amount of the gain control amount in a succeeding reception based on a measured result by the error rate measuring means in a present reception, a measured result by the error rate measuring means in a preceding reception, the gain control amount set in a present reception, and a set value of the gain control amount in the preceding reception (lines 13-21).

Claim 8 recites similar language at lines 2-10, claim 19 at lines 6-14, and claim 25 at lines 19-27.

Neither Rich nor Pearce teach the cited elements, as limited by the cited claim language.

First, Pearce does not suggest measuring an error *rate*. The fact that Pearce uses the term "error" is not relevant, as the term is used to describe an amount that a signal is outside of a set *range* (see col. 3, lines 36-40). This is not an "error rate" as that term is understood in the art.

Second, Pearce does not suggest changing a direction and/or an amount of the gain control amount based on a present and preceding error rate determination. Although Pearce suggests monitoring the signal maximums over time, and establishing a new maximum as one is found, this teaching does not suggest monitoring present and preceding error rates.

Finally, Pearce does not suggest setting the gain amount based on the gain control amount set in a present reception, and a set value of the gain control amount in the preceding reception, as recited in claims 8, 13, 19 & 25.

Consequently, Pearce does not teach that for which it was cited, and hence claims 7, 8, 12, 13, 18, 19, 24 and 25 are patentable over the references, even if combined.

Any remaining dependent claims are patentable for the same reasons as their parent claims, as discussed above, and for the limitations contained therein.

Finally, the combination of Pearce with Rich is improper, as the Examiner has not provided the proper motivation for combining the references. The burden is on the Examiner to make a prima facie case of obviousness (MPEP §2142). To support a prima facie case of obviousness, the Examiner must show that there is some suggestion or *motivation* to modify the reference (MPEP §2143.01). The mere fact that references *can* be combined or modified, alone, is not sufficient to establish prima facie obviousness (*Id.*). The prior art must also suggest the *desirability* of the combination (*Id.*). The fact that the claimed invention is within the capabilities of one of ordinary skill in the art is not sufficient, by itself, to establish prima facie obviousness (*Id.*).

The Examiner has cited no support for modifying Rich according to Pearce in either reference, and the Examiner provides no additional references supporting any motivation to modify the reference. Merely listing an advantage or benefit of the combination, as the Examiner did, is not sufficient, as some rationale for combining the references must be found in the references themselves, or drawn from a convincing line of reasoning based on *established scientific principles* that some advantage or beneficial result would be produced by the combination (MPEP §2144). Such motivation cannot be found in the application itself, as such hindsight is impermissible; the facts must be gleaned from the prior art. (MPEP §2142, last paragraph). Accordingly, the rejections under section 103 are improper.

In consideration of the foregoing analysis, it is respectfully submitted that the present application is in a condition for allowance and notice to that effect is hereby requested. If it is determined that the application is not in a condition for allowance, the examiner is invited to initiate a telephone interview with the undersigned attorney to expedite prosecution of the present application.

If there are any additional fees resulting from this communication, please charge same to our Deposit Account No. 16-0820, our Order No. 32930.

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Respectfully submitted,

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